

IN THE SPECIFICATION:

Please replace lines 19-24 on page 9 with the following paragraph:

Concerning the isotropic pitch-based carbon fiber spun yarn of the present invention, it is preferable that fine carbon fiber aggregates contained in the spun yarn has the maximum diameter equal to or below 3.0 times the average diameter of the foundation yarn of the spun yarn and the maximum length equal to or below 10 mm.

Please delete lines 15-19, page 33:

~~In the present invention, the water-soluble polymer fiber is wound around the surface of the isotropic pitch-based carbon fiber spun yarn 10 by use of at least one of the first winding device 24 and the second winding device 26.~~

Please replace lines 22-26 on page 43 and lines 1-7 on page 44 with the following paragraph:

As shown in Fig. 1, the isotropic pitch-based carbon fiber spun yarn 10 extracted from the cheese 12 was allowed to contact an upper part of the touch roller 18, which was configured to render a lower half immersed in the sizing agent tank 14 and to rotate at the same circumferential velocity (V_R : 30 m/min) as a velocity (V_Y : 30 m/min) of the extracted isotropic pitch-based carbon fiber spun yarn 10, and the isotropic pitch-based carbon fiber spun yarn 10 was extracted again so as to be impregnated with the sizing agent aqueous solution 16 in the sizing agent tank 14 from the surface. The sizing agent layer was thus formed by drying at a ~~simple~~ drying temperature of 130°C.

Please replace lines 8-24 on page 44 with the following paragraph:

Subsequently, the isotropic pitch-based carbon fiber spun yarn 10 including the sizing agent layer formed thereon was wound around the tension roller 22. The wound

isotropic pitch-based carbon fiber spun yarn 10 including the sizing agent layer formed thereon did not contain any fine carbon fiber aggregates having the maximum diameter equal to or below 3.0 times of the average diameter of the foundation yarn or the maximum length equal to or below 10 mm. Here, the composition of the sizing agent (A) used therein included polyvinyl alcohol (“Kuraray Poval #218” made by Kuraray) in an amount of 85% by mass, acrylic resin (“Plas Size #663” made by Goo Chemical) in an amount of 5% by mass, a penetrant (“Sanmorin #11” made by Sanyo Chemical Industries) in an amount of 2% by mass, a wax-type oil solution (“Makonol #222” made by Matsumoto Yushi) in an amount of 6% by mass, and water in an amount of 2% by mass.

Please replace lines 16-26 on page 45 and lines 1-4 on page 46 with the following paragraph:

Similarly, in the second winding device 26 as well, the water-soluble vinylon fiber 34 20 was wound around the isotropic pitch-based carbon fiber spun yarn 10 in the opposite winding direction opposite to that, in which the water-soluble vinylon fiber 34 was wound, the first winding device 24 while defining a clearance between lines of the water-soluble vinylon fibers 34 20 upon passage through the snail wire 28. Here, the number of windings of the first water-soluble vinylon fiber 34 wound around the isotropic pitch-based carbon fiber spun yarn 10 by the first winding device was set at 800 rounds/m, and the number of windings of the second water-soluble vinylon fiber 34 20 wound around the isotropic pitch-based carbon fiber spun yarn 10 by the second winding device was set at 800 rounds/m.

Please replace lines 21-26 on page 57 and lines 1-7 on page 58 with the following paragraph:

The procedures similar to those of Example 1 were conducted except that the isotropic pitch-based carbon fiber spun yarn of 1500 deniers, and the number of twists of 180 turns/m baked at the temperature of 2000°C, as described in Reference Example 2 was used instead of the isotropic pitch-based carbon fiber spun yarn of 1500 deniers, and the number of twists of 180 turns/m baked at the temperature of 1000°C, as described in Reference Example 1 as used in Example 1, and that the sizing agent was replaced with an aqueous solution composed of polyvinyl alcohol (“Kuraray Poval #217” made by Kuraray) in an amount of 70% by mass and water in an amount of 30% by mass was used for a sizing agent (B).

Please replace Table 1 on page 72 with the following Table 1.

Carbon Fiber Spun Yarn																	Carbon Fiber/Vinylon Fiber Composite Yarn					High-speed Weaving		Carbon Fiber Spun Yarn Textile	
Heat Treatment Temperature ℃	Fineness (deniers)	Method of removing fine carbon fibers	Sizing Agent		Velocity Ratio (V _r /V _y)	Fine Carbon Fiber Aggregate				Number of aggregates having diameter exceeding 3 times or length exceeding 10 mm (pieces per 10 m)	Number of windings of First Water-soluble Vinylon Fiber (rounds/m)	Number of windings of Second Water-soluble Vinylon Fiber (rounds/m)	Strength and Elongation		Thread Breakage	Emergency Shutdown	Tensile Strength (kN per 50-mm width)								
						Blend Type	Impregnation Method	Maximum Diameter (times)	Maximum Length (mm)				Number of aggregates having diameter ranging from 1.5 to 3.0 times and length ranging from 3 to 10 mm (pieces per 10 m)	Tensile Strength (N)				Elongation (%)							
			Warp direction	Weft direction																					
Example 1	1000	1500	Touch Roller	A	Touch Roller	1.0	2.2	4.4	0	1	800	800	250	3.2	0	0	0.58	0.49							
Example 2	2000	1500	Touch Roller	A	Touch Roller	1.0	1.4	3.8	0	1	800	800	240	3.1	0	0	0.55	0.47							
Example 3	2400	1500	Touch Roller	A	Touch Roller	1.0	1.4	3.8	0	1	800	800	230	2.9	0	0	0.56	0.48							
Example 4	1000	4000	Touch Roller	A	Touch Roller	1.0	2.2	4.2	0	2	800	800	420	3.4	0	0	1.55	1.31							
Example 5	2000	4500	Touch Roller	A	Touch Roller	1.0	2.2	4.2	0	2	800	800	425	3.3	0	0	1.65	1.41							
Example 6	2000	1500	Air Flow	A	Splaying	—	1.6	4.2	0	2	800	800	240	3.1	0	0	0.55	0.47							
Example 7	2000	1500	Water Washing	A	Splaying	—	1.7	4.0	0	4	800	800	240	3.0	0	0	0.55	0.47							
Example 8	2000	1500	Ultrasonic /Water Washing	A	Splaying	—	1.5	4.0	0	1	800	800	240	3.1	0	0	0.55	0.47							
Example 9	2000	1500	Ultrasonic /Water Washing	A	Dripping	—	1.5	4.0	0	1	800	800	236	3.0	0	0	0.55	0.47							
Example 10	2000	1500	Touch Roller	A	Touch Roller	2.0	1.4	3.8	0	1	800	800	240	3.1	0	0	0.55	0.47							
Example 11	2000	1500	Touch Roller	A	Touch Roller	3.0	1.3	3.6	0	1	800	800	240	3.1	0	0	0.55	0.47							
Example 12	2000	1500	Touch Roller	B	Touch Roller	1.0	1.4	3.8	0	1	800	800	240	3.1	0	0	0.55	0.47							
Example 13	2000	1500	Touch Roller	A	Touch Roller	1.0	1.4	3.8	0	1	200	200	155	2.7	0	0	0.55	0.47							
Example 14	2000	1500	Touch Roller	A	Touch Roller	1.0	1.4	3.8	0	1	1800	1800	280	3.2	0	0	0.55	0.47							
Comparative Example 1	2000	1500	Guide	A	Dipping	—	6.5	13.4	7	6	800	800	240	3.1	>5	>5	—	—							
Comparative Example 2	2000	1500	Roller	A	Dipping	1.0	5.0	11.3	2	5	800	800	240	3.1	1 to 2	2 to 3	—	—							
Comparative Example 3	2000	1500	—	—	—	—	5.1	11.6	1	4	—	—	27	2.6	>5	>5	—	—							
Comparative Example 4	2000	1500	Touch Roller	A	Touch Roller	0.5	4.6	12.0	2	5	800	800	240	3.1	1 to 2	2 to 3	—	—							
Comparative Example 5	2000	1500	Touch Roller	A	Touch Roller	0.1	6.8	13.1	3	6	800	800	240	3.1	3 to 4	4 to 5	—	—							
Comparative Example 6	2000	1500	Touch Roller	A	Touch Roller	0.01	7.2	16.4	2	6	800	800	240	3.1	4 to 5	>5	—	—							
Comparative Example 7	2000	1500	Guide	A	Dipping	1.0	5.0	11.3	2	5	4000	—	320	3.3	0	0	—	—							

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